Detailed Table of Contents

1.1 Introduction 1 1.2 Why is Software Project Management Important? 1 1.3 What is a Project? 2 1.4 Software Projects versus Other Types of Project 4 1.5 Contract Management and Technical Project Management 4 1.6 Activities Covered by Software Project Management 4 1.7 Plans, Methods and Methodologies 7 1.8 Some Ways of Categorizing Software Projects 8 1.9 Project Charter 11 1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23		Intro	duction to Software Project Management			
1.2 Why is Software Project Management Important? 1 1.3 What is a Project? 2 1.4 Software Projects versus Other Types of Project 4 1.5 Contract Management and Technical Project Management 4 1.6 Activities Covered by Software Project Management 4 1.7 Plans, Methods and Methodologies 7 1.8 Some Ways of Categorizing Software Projects 8 1.9 Project Charter 11 1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25		The second second				
1.3 What is a Project? 2 1.4 Software Projects versus Other Types of Project 4 1.5 Contract Management and Technical Project Management 4 1.6 Activities Covered by Software Project Management 4 1.7 Plans, Methods and Methodologies 7 1.8 Some Ways of Categorizing Software Projects 8 1.9 Project Charter 11 1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25		75.0				
1.4 Software Projects versus Other Types of Project 4 1.5 Contract Management and Technical Project Management 4 1.6 Activities Covered by Software Project Management 4 1.7 Plans, Methods and Methodologies 7 1.8 Some Ways of Categorizing Software Projects 8 1.9 Project Charter 11 1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25						
1.5 Contract Management and Technical Project Management 4 1.6 Activities Covered by Software Project Management 4 1.7 Plans, Methods and Methodologies 7 1.8 Some Ways of Categorizing Software Projects 8 1.9 Project Charter 11 1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25						
1.6 Activities Covered by Software Project Management 4 1.7 Plans, Methods and Methodologies 7 1.8 Some Ways of Categorizing Software Projects 8 1.9 Project Charter 11 1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25				4		
1.7 Plans, Methods and Methodologies 7 1.8 Some Ways of Categorizing Software Projects 8 1.9 Project Charter 11 1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25						
1.8 Some Ways of Categorizing Software Projects 8 1.9 Project Charter 11 1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25						
1.9 Project Charter 11 1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25						
1.10 Stakeholders 12 1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25						
1.11 Setting Objectives 13 1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25						
1.12 The Business Case 14 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25						
 1.13 Project Success and Failure 15 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25 						
 1.14 What is Management? 16 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25 						
 1.15 Management Control 18 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25 						
 1.16 Project Management Life Cycle 21 1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25 						
1.17 Traditional versus Modern Project Management Practices 23 Conclusion 25						
Conclusion 25				23		
Annex 1 Contents List for a Project Plan 25		Concl				
	1	Annex	c 1 Contents List for a Project Plan 25			
		200	ct Evaluation and Programme Management			

Introduction 31

x	Detaile	d Table of Contents lints (
	2.2	Business Case 32		o Develor		VI.
	2.3				Managing In	
	2.4	Evaluation of Individual Projects 35				
		Cost-benefit Evaluation Techniques 37				Mano.
	2.5	Risk Evaluation 43				shrur
	2.6	Programme Management 46				
	2.7	Managing the Allocation of Resources within Programmes	47		nel and ben	offwen
	2.8	Strategic Programme Management 48	7/			. A
	2.9					.2
	2.10	Creating a Programme 48 Aids to Programme Management 50			Problem wit	
	2.11					
	2.12	8				
	2.13	Benefits Management 53				à.
		lusion 54			Part of F	
	Furth	er Exercises 55				
3.	An O	verview of Project Planning				58
	3.1	Introduction to Step Wise Project Planning 58				01.
	3.2	Step 0: Select Project 60				
	3.3	Step 1: Identify Project Scope and Objectives 62				
	3.4	Step 2: Identify Project Infrastructure 64				
	3.5	Step 3: Analyse Project Characteristics 66			See Long	
	3.6	Step 4: Identify Project Products and Activities 68			en dien	731.
	3.7	Step 5: Estimate Effort for Each Activity 73				101
	3.8	Step 6: Identify Activity Risks 74		Arria 1		
	3.9	Step 7: Allocate Resources 75				alemai.
	3.10	Step 8: Review/Publicize Plan 77				
	3.11		78	.732.5		
		lusion 78				121131
		per Exercises 79				
			WHAT !		Was the site.	-
4.		tion of an Appropriate Project Approach			6	81
	4.1	Introduction 81			4.24	
	4.2	Build or Buy? 83				
	4.3	Choosing Methodologies and Technologies 84	3		16. State 7 - 17 1	d.
	4.4	Software Processes and Process Models 88				
	4.5	Choice of Process Models 88			and the same	
	4.6	Structure versus Speed of Delivery 88		ugi Silo and N	Text to the state of the	
	4.7	The Waterfall Model 89		100		
	4.8	The Spiral Model 91				
	4.9	Software Prototyping 92				

Other Ways of Categorizing Prototypes 93

Rapid Application Development 100

Extreme Programming (XP) 103

Atern/Dynamic Systems Development Method 98

Incremental Delivery 95

Agile Methods 101

4.10

4.11

4.12

4.13 4.14

4.15

4.16 Scrum 106

tailed Table of Contents	X
The second second	

		Detailed Table of Contents AI
4.17	Lean Software Development 108	
4.18	Managing Iterative Processes 110	The state of the s
4.19	Selecting the Most Appropriate Process Model 11	II
	usion 112	ALE 10.85
	er Exercises 112	ARTERIAL STREET
Turin	ti Latituses 112	
Softw	are Effort Estimation	117
5.1	Introduction 117	
5.2	Where are the Estimates Done? 119	
5.3	Problems with Over- and Under-Estimates 120	A Committee of the Comm
5.4	The Basis for Software Estimating 121	
5.5	Software Effort Estimation Techniques 124	
5.6	Bottom-up Estimating 125	
5.7	The Top-down Approach and Parametric Models	126
5.8	Expert Judgement 128	
5.9	Estimating by Analogy 128	The state of the s
5.10	Albrecht Function Point Analysis 129	
5.11	Function Points Mark II 131	
5.12	COSMIC Full Function Points 133	
5.13	COCOMO II: A Parametric Productivity Model 1	35
5.14	Cost Estimation 141	and the state of t
5.15	Staffing Pattern 141	
5.16	Effect of Schedule Compression 143	4.1 4.34 (4.54 (4.55 (4.5)
5.17	Capers Jones Estimating Rules of Thumb 144	
	usion 146	
Furthe	er Exercises 146	
	benia lakosa aria a aria sa ing managan ng m	states in the large season of the large state of the state
	ty Planning	155
6.1	Introduction 155	
6.2	Objectives of Activity Planning 156	
6.3	When to Plan 157	
6.4	Project Schedules 157	
6.5	Projects and Activities 157	
6.6	Sequencing and Scheduling Activities 163	
6.7	Network Planning Models 164	
6.8	Formulating a Network Model 164	
6.9	Adding the Time Dimension 168	
6.10	The Forward Pass 169	
6.11	Backward Pass 171	
6.12	Identifying the Critical Path 172	12 to global make second 1 At all
6.13	Activity Float 174	
6.14	Shortening the Project Duration 174	solution and manifest primale of the
6.15	Identifying Critical Activities 175	
6.16	Activity-on-Arrow Networks 175	
Concl	usion 183	

Further Exercises 183

7.	Risk Management	respectively respired and VI-18
1.		
Mary.	7.1 Introduction 188 7.2 Risk 189	0. Managing Continue
		TOT
	7.3 Categories of Risk 1907.4 Risk Management Approaches 192	10.2 "1110 of season his season
	7.4 Risk Management Approaches 192 7.5 A Framework for Dealing with Risk 192	The second country to the state "title"
	7.5 A Framework for Dealing with Risk 192 7.6 Risk Identification 193	TABLE TOTAL STRUCTURE
	and the second s	
		10.6 Agentuge the farmers of one 170
	7.8 Risk Planning 197	Christiana, Jewin Dyer and Index Bedma
	7.9 Risk Management 1997.10 Evaluating Risks to the Schedule 200	t general countries of their stations
	7.10 Evaluating Risks to the Schedule 2007.11 Boehm's Top 10 Risks and Counter Measures	202 Wangeld II Wangeld II
A.F.	7.12 Applying the PERT Technique 203	202
	7.13 Monte Carlo Simulation 208	in a final and a supply of the substantial in the
	7.14 Critical Chain Concepts 209 Conclusion 214	2 Calaba, Caramana Lin
	Further Exercises 215	Car angles from reasons and a significant
	Further Exercises 213	ATT TO STORY AND THE PROPERTY AND THE
8.	Resource Allocation	Et a stake i magazini i lizi (1004, 200)
	8.1 Introduction 219	reviouslered outermines at the Colonial Paris
	8.2 Nature of Resources 220	The Contemporaries of the
	8.3 Identifying Resource Requirements 221	The state of the s
	8.4 Scheduling Resources 224	As the water reported the parties and a little
	8.5 Creating Critical Paths 228	multiple color probabilities from the color of the color
	8.6 Counting the Cost 228	Parkett State of the State of t
	8.7 Being Specific 228	
	8.8 Publishing the Resource Schedule 230	2. Working at I was a second of the second o
	8.9 Cost Schedules 232	12.1 1,6,000,000
	8.10 Scheduling Sequence 233	12.1 Technology of the Property of the Propert
	Conclusion 235	2011年 1911年
	Further Exercises 235	121 Openhary a New York and a few
9.	Monitoring and Control	23
۶.	9.1 Introduction 238	Lite and the writing with the control of the contro
	9.2 Creating the Framework 238	
	9.3 Collecting the Data 241	TO A SHEET SHEET SHEET SALES
	9.4 Review 244	
	9.5 Visualizing Progress 247	
	9.6 Cost Monitoring 250	
	9.7 Earned Value Analysis 251	Software tienes
	9.8 Prioritizing Monitoring 256	A La property LLA
	9.9 Getting the Project Back to Target 257	the maximum of the all
	9.10 Change Control 259	The same of the sa
	9.11 Software Configuration Management (SCM)	
	Conclusion 267	13.5 Sub- 144 - Sub- 241
	Engther Exercises 267	

Definited Liple of Contents	iix
Detailed Table of Contents	xiii

iix

10.	Managing Contracts	in a little of the second	270
	10.1 Introduction 270	kerness Paragon My Tella	1 200
	10.2 Types of Contract 271	and a color of	
	10.3 Stages in Contract Placement 276	the resource of the state of the state.	
	10.4 Typical Terms of a Contract 280	in the court of the second	
	10.5 Contract Management 283		0.1
	10.6 Acceptance 283		
	Conclusion 284		
	Further Exercises 284		
	Further Exercises 204	sign design to the trace part	
11.	Managing People in Software Environments	The same of the same of the same of the	286
	11.1 Introduction 286	a couply just propor	
	11.2 Understanding Behaviour 288		
	11.3 Organizational Behaviour: A Background 289		P. F- 1
	11.4 Selecting the Right Person for the Job 290		
	11.5 Instruction in the Best Methods 292		
	11.6 Motivation 292		
219	11.7 The Oldham–Hackman Job Characteristics Model	295	
	11.8 Stress 296	That report when had bedpen a	
	11.9 Stress Management 297	and the same statement when the	
	11.10 Health and Safety 297	or open desired by the second	
	11.11 Some Ethical and Professional Concerns 298	the state of the s	CHAIL IN
	Conclusion 300		
	Further Exercises 300		
12.	Working in Teams		303
	12.1 Introduction 303		
	12.2 Becoming a Team 304		
	12.3 Decision Making 307		
	12.4 Organization and Team Structures 312		
100	12.5 Coordination Dependencies 318		
15.7	12.6 Dispersed and Virtual Teams 319		
	12.7 Communication Genres 321		
	12.8 Communication Plans 323		
	12.9 Leadership 323		
	Conclusion 325		
	Further Exercises 326		
13.	Software Quality		327
	13.1 Introduction 327	for all the second of the second separate	
	13.2 The Place of Software Quality in Project Planning	328	
	13.3 Importance of Software Quality 329		
	13.4 Defining Software Quality 329		
	13.5 Software Quality Models 331		
	13.6 ISO 9126 <i>333</i>		
	13.7 Product and Process Metrics 339		
	13.8 Product versus Process Quality Management 339		

xiv Detailed Table of Contents

13.9 Quality Management Systems 341	
13.10 Process Capability Models 343	
13.11 Techniques to Help Enhance Software Quality	
13.12 Testing 357	ous temesers court in those 4.0. If
13.13 Software Reliability 363	
13.14 Quality Plans 367	
Conclusion 368	
Further Exercises 368	The maximal and being
14. Project Closeout	374
14.1 Introduction 374	
14.2 Reasons for Project Closure 375	
14.3 Project Closure Process 377	
14.4 Performing a Financial Closure 378	mercali A con I refail homoresensors (11)
14.5 Project Closeout Report 380	
Conclusion 381	
Exercise 382	
Appendix A: PRINCE2—An Overview	States a tell provided a control of the 383
· 6	500 April 1 April 2 April 300
Appendix B: Project Management Tools	394
Appendix C: Answer Pointers	Was a war war war findbast 397
A Department of the Control of the C	ART BURNAL SOLE WAS BOUNDED.
Further Reading	436
Index	1. I would not be a facility and the state of the state o
	The Delivery of the Party of th
	Approximate to students of the
	a Property of the second second
	and the second second second second
	Fig. americann's quickery and
	and the second second
	to the relative and the same like a